



NEEDLE THORACOSTOMY

FIELD ASSESSMENT/TREATMENT INDICATORS

Signs and symptoms of tension pneumothorax may include any or all of the following:

1. Increasing agitation.
2. Progressively worsening dyspnea/cyanosis.
3. Decreased or diminished breath sounds on the affected side.
4. Hypotension.
5. Distended neck veins.
6. Tracheal deviation away from the affected side.
7. In blunt chest trauma consider bilateral tension pneumothorax if SPO2 remains low with a patent airway or with poor respiratory compliance.

PROCEDURE

1. Explain the procedure to the patient:
 - a. If conscious, place the patient in an upright position if able to tolerate.
 - b. If patient is unconscious or in axial-spinal immobilization, leave supine.
2. Use an approved pre-packaged device. If unable to obtain an approved pre-packaged device utilize the following:
 - a. For patients weighing more than 50kg - 14 or 16 gauge, 2 to 3½ inch needle and cannula.
 - b. For patients weighing less than 50kg - 18g, 1 to 1¼ inch needle and cannula.
3. Prepare the area with antiseptic wipes -- second intercostal space, midclavicular line. An alternative needle thoracostomy site may include the fourth or fifth intercostal space, mid-axillary line at nipple level. Caution should be exercised in the later stages of pregnancy when a higher (3rd) intercostal space should be used to

- avoid injury to the liver or spleen.
4. Insert needle perpendicular to the chest wall at the level of the superior border of the third rib until pleura is penetrated as indicated by one or more of the following:
 - a. A rush of air.
 - b. Ability to aspirate free air into the syringe.
 5. Remove syringe and needle stylet and leave cannula in place with flutter valve.
 6. Secure needle hub in place with tape or other approved device.
 7. Reassess patient lung sounds and respiratory status immediately and every five (5) minutes thereafter.
 8. Contact Base Station with patient update.